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=> s (GAH and antibody and protein)

232 GAH

9 GAHS

241 GAH

(GAH OR GAHS)

328530 ANTIBODY

393072 ANTIBODIES

521329 ANTIBODY

(ANTIBODY OR ANTIBODIES)

2146502 PROTEIN

1508360 PROTEINS

2504122 PROTEIN

(PROTEIN OR PROTEINS)

L1 5 (GAH AND ANTIBODY AND PROTEIN)

=> duplicate remove L1

PROCESSING COMPLETED FOR L1

L2 5 DUPLICATE REMOVE L1 (0 DUPLICATES REMOVED)

=> d L2 bib abs 1-5

L2 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:351209 CAPLUS

DN 146:375327

TI Protein combination characterized in fluorescence resonance  
energy transfer, and the use thereof

IN Zhang, Jun; Guan, Baoquan; Luo, Wenxin; Ge, Shengxiang; Xia, Ningshao

PA Xiamen University, Peop. Rep. China; Yang Sheng Tang Company Limited

SO PCT Int. Appl., 39pp.

CODEN: PIXXD2

DT Patent

LA Chinese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2007033514	A1	20070329	WO 2005-CN1488	20050919
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,  
LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,  
NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,  
SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,

YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM

PRAI WO 2005-CN1488 20050919

AB The invention relates to a kind of protein combination characterized in fluorescence resonance energy transfer, which consists of the protein of variable region in heavy chain and the protein of variable region light chain from the same antibody, and optionally, specific antigen recognized by the antibody, wherein either of the protein of variable region in heavy chain and the protein of variable region light chain or the optional specific antigen recognized by the antibody has fluorescence substance (chemiluminescence substance) as energy donor, or has fluorescence quencher as energy acceptor. The invention also relates to a method of detecting the target antigen in a sample by using the protein combination, and the kit contg. the target antigen in the sample detected by the protein combination.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 2007:13283 CAPLUS

DN 146:224098

TI Detection of Multiple Proteins on One Spot by Laser Ablation  
Inductively Coupled Plasma Mass Spectrometry and Application to Immuno-  
Microarray with Element-Tagged Antibodies

AU Hu, Shenghong; Zhang, Sichun; Hu, Zhaochu; Xing, Zhi; Zhang, Xinrong  
CS Department of Chemistry, Key Laboratory for Atomic and Molecular  
Nanoscience of Education Ministry, Tsinghua University, Beijing, 100084,  
Peop. Rep. China

SO Analytical Chemistry (2007), 79(3), 923-929  
CODEN: ANCHAM; ISSN: 0003-2700

PB American Chemical Society

DT Journal

LA English

AB Inductively coupled plasma mass spectrometry (ICPMS) has been successfully used for the detection of element-tagged biomols. with the advantage of multielement capability. However, this technique cannot be used for microarray detection due to the necessity to dissolve the elemental tags before introducing them to the plasma source. Here, the authors report the detection of multiple proteins on each spot of the immuno-microarray by laser ablation ICPMS. .alpha.-Fetoprotein (AFP),

carcinoembryonic antigen (CEA), and human IgG, as model proteins, have been detected on the basis of sandwich-type immunoreactions on a microarray with Sm3+-labeled AFP antibody, Eu3+-labeled CEA antibody, and Au-labeled goat-anti-human IgG (GAH) as labeled antibodies. The detection limits were 0.20, 0.14, and 0.012 ng mL<sup>-1</sup> (3.sigma.) with the RSD of 5.7%, 2.6%, and 2.3% at the concn. of 1.0 ng mL<sup>-1</sup> for AFP, CEA, and human IgG, resp. The present detection method permits detecting multiple analytes from each spot of microarray with a spatial resolu. at micrometer range, which can alleviate the stress to fabricate high-d. arrays. Furthermore, the substrate materials and immobilized proteins do not interfere with the detection. The present technique provides a new strategy for readout of microarray.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 2004:550973 CAPLUS

DN 141:105258

TI Method of protecting thiol group or disulfide bond of antibodies or fragments

IN Sasaki, Kenji; Katsumura, Yasuhiko

PA Mitsubishi Pharma Corporation, Japan

SO PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

PI WO 2004056872	A1	20040708	WO 2003-JP16362	20031219
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2511228	A1	20040708	CA 2003-2511228	20031219
AU 2003289455	A1	20040714	AU 2003-289455	20031219
EP 1574521	A1	20050914	EP 2003-780938	20031219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
US 20060257393 A1 20061116 US 2005-539756 20050620  
PRAI JP 2002-370822 A 20021220  
WO 2003-JP16362 W 20031219

AB Provided is a method of protecting thiol groups of a protein having a free cysteine residue, which comprises adding a compd. which has a disulfide bond in the mol. and exerts substantially no influence on the activity of the protein. The method uses compds. such as cysteine, homocysteine, lipoic acid or oxidized glutathione to protect thiol group or disulfide bond of antibodies or other proteins. The invented method is used for prepg. stomach and colon cancer-specific human monoclonal antibody GAH as antitumor agent.

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 2000:52203 CAPLUS

DN 132:235817

TI Specific targeting of EGP-2+ tumor cells by primary lymphocytes modified with chimeric T cell receptors

AU Ren-Heidenreich, L.; Hayman, G. T.; Trevor, K. T.

CS Vince Lombardi Gene Therapy Laboratory, St. Luke's Medical Center, Immunotherapy Research and Treatment Institute, Milwaukee, WI, 53215, USA

SO Human Gene Therapy (2000), 11(1), 9-19

CODEN: HGTHE3; ISSN: 1043-0342

PB Mary Ann Liebert, Inc.

DT Journal

LA English

AB A promising strategy for cancer treatment is adoptive immunotherapy with gene-modified lymphocytes expressing a chimeric T cell receptor (cTCR) that directs tumor targeting and stimulates T cell effector functions. In this study, the activities of two novel cTCR mols. (GA.gamma. and GAH.gamma.) were investigated. Both encode a single-chain variable fragment (scFv) derived from the monoclonal antibody (MAb) GA733.2, which binds the epithelial glycoprotein 2 (EGP-2) overexpressed on a variety of human carcinomas. In the GA.gamma. cTCR, the scFv is directly fused to the transmembrane/cytoplasmic portions of the Ig Fc receptor (Ig FcRI) .gamma. subunit, which mediates T cell signaling. GAH.gamma. possesses an extracellular spacer composed of the CD8.alpha. Ig hingelike domain inserted between the scFv and .gamma. chain. Activated T cells (ATCs), stimulated ex vivo using anti-CD3 MAb, were derived from either healthy donors or patients and transduced with recombinant retrovirus encoding the resp. GA cTCR mols. After culture expansion for 14 days, GA.gamma.-modified ATCs demonstrated

enhanced targeting and lysis of EGP-2+ colon cancer cells and increased cytokine secretion. Cells transduced with the GAH.gamma. cTCR displayed specific lytic activity that was about twofold greater than that of GA.gamma.-ATCs and produced significantly more cytokine. In addn., reactivation of GAH.gamma.-ATC with anti-CD3 MAb prior to addn. to EGP-2+ tumor target induced a further increase in lytic activity. Because the activation status influences T cell antitumor functions, our data suggest that reactivation prior to adoptive transfer would improve the clin. efficacy of GAH.gamma.-modified ATCs.

RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 1993:146097 CAPLUS

DN 118:146097

TI Human monoclonal antibody specifically binding to surface antigen of cancer cell membrane

IN Hosokawa, Saiko; Tagawa, Toshiaki; Hirakawa, Yoko; Ito, Norihiko; Nagaike, Kazuhiro

PA Mitsubishi Kasei Corp., Japan

SO Eur. Pat. Appl., 37 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 520499	A1	19921230	EP 1992-110841	19920626
EP 520499	B1	19980225		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
JP 05304987	A	19931119	JP 1992-162849	19920622
JP 3236667	B2	20011210		
CA 2072249	A1	19921229	CA 1992-2072249	19920624
CA 2072249	C	20030617		
ES 2115626	T3	19980701	ES 1992-110841	19920626
US 5767246	A	19980616	US 1994-360125	19941220
US 5837845	A	19981117	US 1995-450578	19950525
US 6139869	A	20001031	US 1995-450363	19950525
US 5990297	A	19991123	US 1998-14880	19980128
US 5990287	A	19991123	US 1998-17628	19980202
US 6787153	B1	20040907	US 1999-467903	19991221
PRAI JP 1991-158859	A	19910628		
JP 1991-158860	A	19910628		
JP 1991-158861	A	19910628		
US 1992-905534	B1	19920629		

US 1994-360125 A3 19941220  
US 1995-450363 A3 19950525  
US 1995-450578 A3 19950525

OS MARPAT 118:146097

AB Human monoclonal antibodies (hMAbs) binding to surface antigens of cancer cell membranes are prepd. by the hybridoma method by fusing human lymphocytes derived from cancer patients and mouse myeloma cells or by recombinant methods. Also disclosed are DNA encoding the hMAbs and an anticancer formulation comprising the hMAb bonded to the surface of a liposome enclosing an anticancer agent. HMAb GAH was prepd. from cancer-assocd. lymph node lymphocytes of a patient with colon cancer and characterized. CDNA sequences of the variable regions of the light and heavy chains of GAH and the encoded amino acid sequences were detd. Thiolated Fab' fragments of GAH were conjugated with maleimidated dipalmitoylphosphatidylethanolamine-contg. liposomes encapsulating adriamycin; the conjugates were modified with thiolated PEG. These liposomes inhibited MKN45 cell cancer in nude mice.

=> s (GAH and antibody and cancer)

232 GAH

9 GAHS

241 GAH

(GAH OR GAHS)

328530 ANTIBODY

393072 ANTIBODIES

521329 ANTIBODY

(ANTIBODY OR ANTIBODIES)

356858 CANCER

52475 CANCERS

370091 CANCER

(CANCER OR CANCERS)

L3 7 (GAH AND ANTIBODY AND CANCER)

=> duplicate remove L3

PROCESSING COMPLETED FOR L3

L4 7 DUPLICATE REMOVE L3 (0 DUPLICATES REMOVED)

=> d L4 bib abs 1-7

L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:550973 CAPLUS

DN 141:105258

TI Method of protecting thiol group or disulfide bond of antibodies  
or fragments

IN Sasaki, Kenji; Katsumura, Yasuhiko



PA Mitsubishi Pharma Corporation, Japan

SO PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004056872	A1	20040708	WO 2003-JP16362	20031219
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2511228	A1	20040708	CA 2003-2511228	20031219
	AU 2003289455	A1	20040714	AU 2003-289455	20031219
	EP 1574521	A1	20050914	EP 2003-780938	20031219
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 20060257393	A1	20061116	US 2005-539756	20050620
PRAI	JP 2002-370822	A	20021220		
	WO 2003-JP16362	W	20031219		

AB Provided is a method of protecting thiol groups of a protein having a free cysteine residue, which comprises adding a compd. which has a disulfide bond in the mol. and exerts substantially no influence on the activity of the protein. The method uses compds. such as cysteine, homocysteine, lipoic acid or oxidized glutathione to protect thiol group or disulfide bond of antibodies or other proteins. The invented method is used for prep. stomach and colon cancer-specific human monoclonal antibody GAH as antitumor agent.

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:721041 CAPLUS

DN 141:360304

TI Antitumor effect of MCC-465, pegylated liposomal doxorubicin tagged with newly developed monoclonal antibody GAH, in colorectal cancer xenografts

AU Hamaguchi, Tetsuya; Matsumura, Yasuhiro; Nakanishi, Yukihiko; Muro, Kei;

Yamada, Yasuhide; Shimada, Yasuhiro; Shirao, Kuniaki; Niki, Hisae;  
Hosokawa, Saiko; Tagawa, Toshiaki; Kakizoe, Tadao  
CS Department of Medicine, National Cancer Center, Tokyo, 104-0045, Japan  
SO Cancer Science (2004), 95(7), 608-613  
CODEN: CSACCM; ISSN: 1347-9032

PB Japanese Cancer Association

DT Journal

LA English

AB MCC-465 is an immunoliposome-encapsulated doxorubicin. The liposome is tagged with polyethylene glycol and the F(ab')<sub>2</sub> of a monoclonal antibody named GAH, a human antibody obtained by the hybridoma technique. The epitope recognized by GAH is not well characterized, but human gastric, colorectal, and mammary cancer cells were GAH-pos., while the normal counterparts were GAH-neg. Pegylated liposome doxorubicin (PLD) and MCC-465 did not show significant antitumor activity against GAH-neg. Caco-2 xenografts. MCC-465 exhibited significantly superior antitumor effects against GAH-pos. WiDr-Tc and SW837 xenografts, compared with PLD. Immunohistochem. with GAH revealed that 94% (100 of 106) of surgical specimens of colorectal cancer were GAH-pos. These results warrant a phase I clin. trial of MCC-465 for patients with metastatic colorectal cancer.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 2004:720921 CAPLUS

DN 142:266394

TI DDS in cancer chemotherapy

AU Matsumura, Yasuhiro

CS Investigative Treatment Division, National Cancer Center Research Institute East, Japan

SO Biotherapy (Tokyo, Japan) (2004), 18(4), 339-351

CODEN: BITPE9; ISSN: 0914-2223

PB Gan to Kagaku Ryohosha

DT Journal; General Review

LA Japanese

AB A review. An objective of DDS in cancer chemotherapy is to find methods by which anticancer agents selectively target solid tumors. Two main concepts constitute selective tumor targeting, active targeting and passive targeting. The former involves monoclonal antibodies or ligands to tumor-related receptors which can target the tumor by utilizing specific binding ability between the antibody and antigen or between the ligand and its receptor. The latter system can be achieved by

the so-called "EPR effect, the enhanced permeability and retention effect.". Regarding passive targeting, Doxil, a pegylated (PEG) liposomal doxorubicin (DXR), received Food and Drug Administration approval for Kaposi's sarcoma, ovarian cancer or breast cancer after several phase III trials. In Japan, clin. trials of liposomal or micellar drugs have begun belatedly. MCC-465 is an immunoliposome-encapsulated DXR. The liposome is tagged with PEG and the F(ab')<sub>2</sub> fragment of human monoclonal antibody, GAH. Phase I study of MCC-465 in patients with metastatic stomach cancer revealed that MCC-465 was well-tolerated, and the recommended phase II dose was 32.5 mg/m<sup>2</sup> every 3 wk. NK911 is the novel supramol. nanocarrier for modulated delivery of DXR, and is the first polymeric micelle system to achieve remarkable accumulation in a solid tumor through the EPR effect. A phase I clin. trial of NK911 revealed that NK911 was well-tolerated, and the recommended phase II dose was detd. to be 50 mg/m<sup>2</sup> every three weeks. Micellar encapsulated taxol, KRN5500 or cisplatin have been developed recently. These will also be evaluated in clin. trials in the near future.

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:408075 CAPLUS

DN 141:427892

TI Establishment and Evaluation of Cancer-Specific Human Monoclonal Antibody GAH for Targeting Chemotherapy Using Immunoliposomes

AU Hosokawa, Saiko; Tagawa, Toshiaki; Niki, Hisae; Hirakawa, Yoko; Ito, Norihiko; Nohga, Katsuhiko; Nagaïke, Kazuhiro

CS Yokohama Research Center, Mitsubishi Chemical Corporation, Yokohama, Japan

SO Hybridoma and Hybridomics (2004), 23(2), 109-120

CODEN: HHYYBF; ISSN: 1536-8599

PB Mary Ann Liebert, Inc.

DT Journal

LA English

AB To establish human monoclonal antibodies suitable for targeting chemotherapy, we prepd. a panel of human-mouse hybridomas, using mouse myelomas and lymphocytes of regional lymph nodes excised from cancer patients, and selected antibodies on the basis of their specificity of binding to the surface of viable cancer cells derived from fresh cancer tissues. A selected antibody, named GAH, was found to react with viable cancer cells from 21/22 stomach and 13/20 colon cancer tissues. As for further anal., complementary DNAs encoding GAH were cloned and recombinant GAH (rGAH) was obtained from established CHO cells transfected with GAH expression vectors. rGAH selectively stained cancer cells in human tissue sections from 13/14 stomach, 4/11 colon, 5/11 mammary, and 0/7 lung cancers

, while no pos. staining was obsd. in those of non-tumor and various normal specimens. Notably, using confocal fluorescence microscopy, rGAH was not only bound to the surface of cancer cells, but was also internalized by the cells. The potential of rGAH for intracellular drug delivery was subsequently evaluated using rGAH-conjugated, doxorubicin (DXR)-encapsulated immunoliposomes. The immunoliposomes were also internalized into the cancer cells and finally DXR was delivered to the cell nucleus. Furthermore, the immunoliposomes could inhibit the growth of DXR-insensitive stomach cancer cells (B37) in an in vivo model. These results suggest that a GAH-utilized liposome-targeting technique will provide a potent and useful cancer chemotherapy with broad applications for cancer patients.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 2003:813744 CAPLUS

DN 140:428839

TI Efficacy of immunoliposomes on cancer models in a cell-surface-antigen-density-dependent manner

AU Hosokawa, S.; Tagawa, T.; Niki, H.; Hirakawa, Y.; Nohga, K.; Nagaïke, K.

CS Pharmaceuticals Research Division, Mitsubishi Pharma Corporation, Aoba-ku, Yokohama, 227-0033, Japan

SO British Journal of Cancer (2003), 89(8), 1545-1551

CODEN: BJCAAI; ISSN: 0007-0920

PB Nature Publishing Group

DT Journal

LA English

AB We have recently established a cancer-reactive human monoclonal antibody, GAH, with a pos. ratio of over 90% against stomach cancer. GAH was formulated as polyethyleneglycol (PEG)-modified immunoliposomal doxorubicin (DXR) (ILD) and its efficacy was examd. against gastrointestinal human cancers. In vitro studies, a comparison of ILD with PEG-modified liposomal DXR (LD) demonstrated that ILD had dose-dependent cytotoxicity for GAH-reactive B37 cancer cells, but not LD. In concordance with this result, microscopic observations showed that ILD was bound to and GAH-dependently internalized by B37 cells. In vivo studies, ILD exhibited significantly greater antitumor activity on cancer xenograft models than LD or free DXR. The relation between efficacy and antigen d. was examd. on 10 xenograft models bearing cancer cells with varying GAH reactivity. Immunoliposomal doxorubicin therapeutic activity correlated with the antigen d., with a min. no. being required. Also, ILD revealed strong

antitumor activity on cancers with low sensitivity to DXR or LD, suggesting that ILD overcame the DXR resistance of antigen-pos. cancer cells. Thus, these results show that GAH endows liposomes with targeting activity, resulting in strong efficacy against gastrointestinal cancers.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:52203 CAPLUS

DN 132:235817

TI Specific targeting of EGP-2+ tumor cells by primary lymphocytes modified with chimeric T cell receptors

AU Ren-Heidenreich, L.; Hayman, G. T.; Trevor, K. T.

CS Vince Lombardi Gene Therapy Laboratory, St. Luke's Medical Center, Immunotherapy Research and Treatment Institute, Milwaukee, WI, 53215, USA

SO Human Gene Therapy (2000), 11(1), 9-19

CODEN: HGTHE3; ISSN: 1043-0342

PB Mary Ann Liebert, Inc.

DT Journal

LA English

AB A promising strategy for cancer treatment is adoptive immunotherapy with gene-modified lymphocytes expressing a chimeric T cell receptor (cTCR) that directs tumor targeting and stimulates T cell effector functions. In this study, the activities of two novel cTCR mols. (GA.gamma. and GAH.gamma.) were investigated. Both encode a single-chain variable fragment (scFv) derived from the monoclonal antibody (MAb) GA733.2, which binds the epithelial glycoprotein 2 (EGP-2) overexpressed on a variety of human carcinomas. In the GA.gamma. cTCR, the scFv is directly fused to the transmembrane/cytoplasmic portions of the Ig Fc receptor (Ig FcRI) .gamma. subunit, which mediates T cell signaling. GAH.gamma. possesses an extracellular spacer composed of the CD8.alpha. Ig hingelike domain inserted between the scFv and .gamma. chain. Activated T cells (ATCs), stimulated ex vivo using anti-CD3 MAb, were derived from either healthy donors or patients and transduced with recombinant retrovirus encoding the resp. GA cTCR mols. After culture expansion for 14 days, GA.gamma.-modified ATCs demonstrated enhanced targeting and lysis of EGP-2+ colon cancer cells and increased cytokine secretion. Cells transduced with the GAH .gamma. cTCR displayed specific lytic activity that was about twofold greater than that of GA.gamma.-ATCs and produced significantly more cytokine. In addn., reactivation of GAH.gamma.-ATC with anti-CD3 MAb prior to addn. to EGP-2+ tumor target induced a further increase in lytic activity. Because the activation status influences T cell antitumor functions, our data suggest that reactivation prior to

adoptive transfer would improve the clin. efficacy of GAH  
gamma.-modified ATCs.

RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS  
RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1993:146097 CAPLUS

DN 118:146097

TI Human monoclonal antibody specifically binding to surface  
antigen of cancer cell membrane

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PI EP 520499	A1	19921230	EP 1992-110841	19920626
EP 520499	B1	19980225		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
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AB Human monoclonal antibodies (hMAbs) binding to surface antigens of cancer cell membranes are prepd. by the hybridoma method by fusing human lymphocytes derived from cancer patients and mouse				

myeloma cells or by recombinant methods. Also disclosed are DNA encoding the hMAbs and an anticancer formulation comprising the hMAb bonded to the surface of a liposome enclosing an anticancer agent. HMAb GAH was prepd. from cancer-assocd. lymph node lymphocytes of a patient with colon cancer and characterized. CDNA sequences of the variable regions of the light and heavy chains of GAH and the encoded amino acid sequences were detd. Thiolated Fab' fragments of GAH were conjugated with maleimidated dipalmitoylphosphatidylethanolamine-contg. liposomes encapsulating adriamycin; the conjugates were modified with thiolated PEG. These liposomes inhibited MKN45 cell cancer in nude mice.